

IN THE ABSTRACT:

Please amend the Abstract as indicated in the revised Abstract attached hereto on its own separate sheet.

-- ABSTRACT OF THE DISCLOSURE

The invention relates to a method of determining mainly the compressibility number  $K$ , the standard volumetric gross calorific value  $H_{v,n}$  and the standard density  $\rho_n$  of test gases using values determined from a spectrum of the test gases. The invention describes various approaches of translating the values for determining the desired values using the data of the spectrum in the operational condition to the standard reference condition using two-step iteration processes without having to subject the test gases to time-consuming treatments. The invention further relates to devices ~~which are useful~~ for determining the values required for ~~said~~ the methods and which further develop devices ~~that can be used~~ for carrying out ~~said~~ the methods.--